

Goal of R&D Breakout

- Identify research areas
- Identify collaboration areas - establish working groups
- Statement of work for next 6 mos – year
- Propose experiments, set date
- Working list of projects

Research Areas

Architecture

Tiled displays

Video

- Higher quality
- Where is the bottleneck?
- What are candidate codecs?

Network Flow Engine

Audio

- Better quality
- Spatialized, localized
- Multiple streams
- Private streams?

Scheduling

Input devices, output devices

Remote Viz

Sci viz

Hi res Viz

Human Interface improvements, ease of use

- Human factors, groupware, cognitive science people
- Social issues

Secure, Private mtgs

App sharing - T120 interoperability ? Something better?

h.323 question

Video/audio capture (Recording)

Advances in the Spec?

- Define rules of engagement
- Experimental gear ok, but needs group approval for deployment

Additional tools

- Multiple independent sessions
- Distributed web browsing
- Document server
- Whiteboard (mimio?)

Video Breakout – Working list of projects

1. Improve Current Performance
 - Directx – MS \$
 - JMF
 - Interlace Artifacts (ANL)
 - H.261 > 320x240 (ANL)
 - Video Code Instrumentation
2. Streaming Capability Ala Real - OSC
 - Video Tape
 - Speaker mode
 - Mail mpegs to remote sites – coordinate playback
3. Better, more consistent Frame rates (Dan ANL)
 - Hw decode/encode for select streams
 - Modest Cost
 - Dan will do feasibility, follow up by John Winans
 - Transcoding available for those w/o hw decode
4. H.323 (OSC)
 - Capability Intersection
 - Audio
 - Video
 - T120
 - Transcoder development
 - OSC will do feasibility on this
5. Display Machine NT vs Linux
 - Conflicting reqm'ts
 - Viz
 - Windows Apps
 - Vmware as a solution (ANL)
 - General APP sharing protocol

Audio Breakout

1. Optimize existing tools
 - a. Basic Checklist
 - b. Investigate RAT
 - c. Common calibration procedure
 - d. Test tone
2. Improve Quality

- a. Latency/dropouts
 - b. Filtering
 - c. Reverb: Unified Space or acoustic signature for speakers
- 3. localization to windows positions
- 4. Backchannel